USER GUIDE FOR NETmc MARINE 73fifty Harvester PC

Rev. 2.0
Firmware v. 3.01
January 2010

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1. Introduction

The ***73fifty Harvester PC*** is an addition to the ***73fifty*** range of equipment, allowing the user to automatically upload files recorded on up to four ***73fifty*** recorders. Files can be automatically uploaded, prefixed and stored to any available network drive, or local storage device, or burned to a DVD, as required by the user.

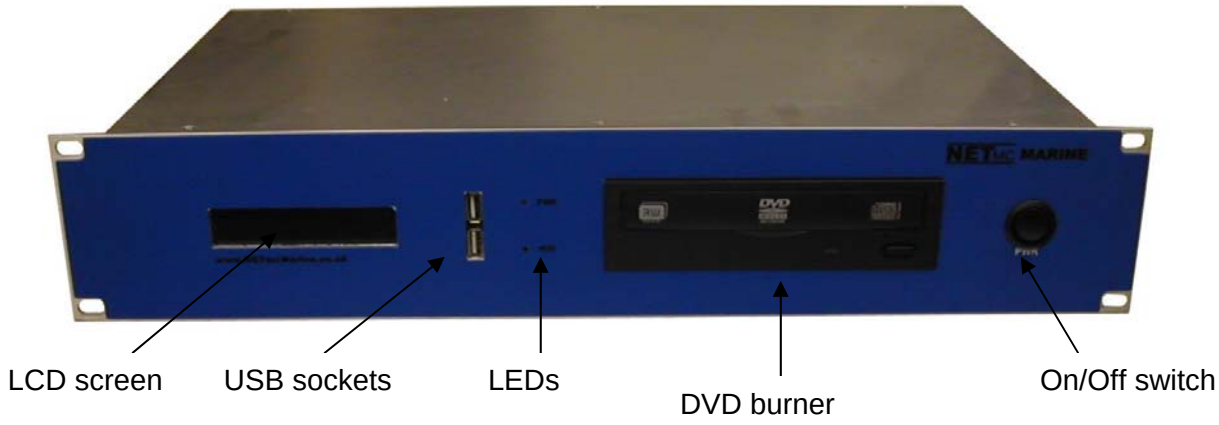
The ***73fifty Harvester PC*** uses simple-to-use software, running on Windows XP Pro and has 3 general USB ports for additional storage.

There are two variants available for purchase:
- The ***73fifty Harvester – D*** incorporates a 500GB disk drive and is fitted with a DVD burner.
- The ***73fifty Harvester – S*** is fitted with 2TB SATA storage (four externally presented 500GB drives, set up in RAID format), plus an internal 250GB drive for operating system and software.

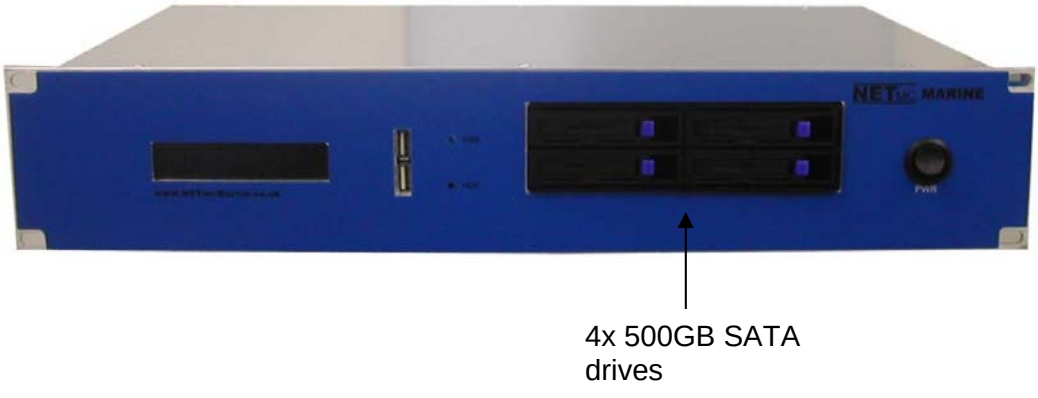
2. Hardware Description and Connections

2.1 Front of the unit

73fifty Harvester-D – with DVD burner



73fifty Harvester-S – with 2TB SATA storage

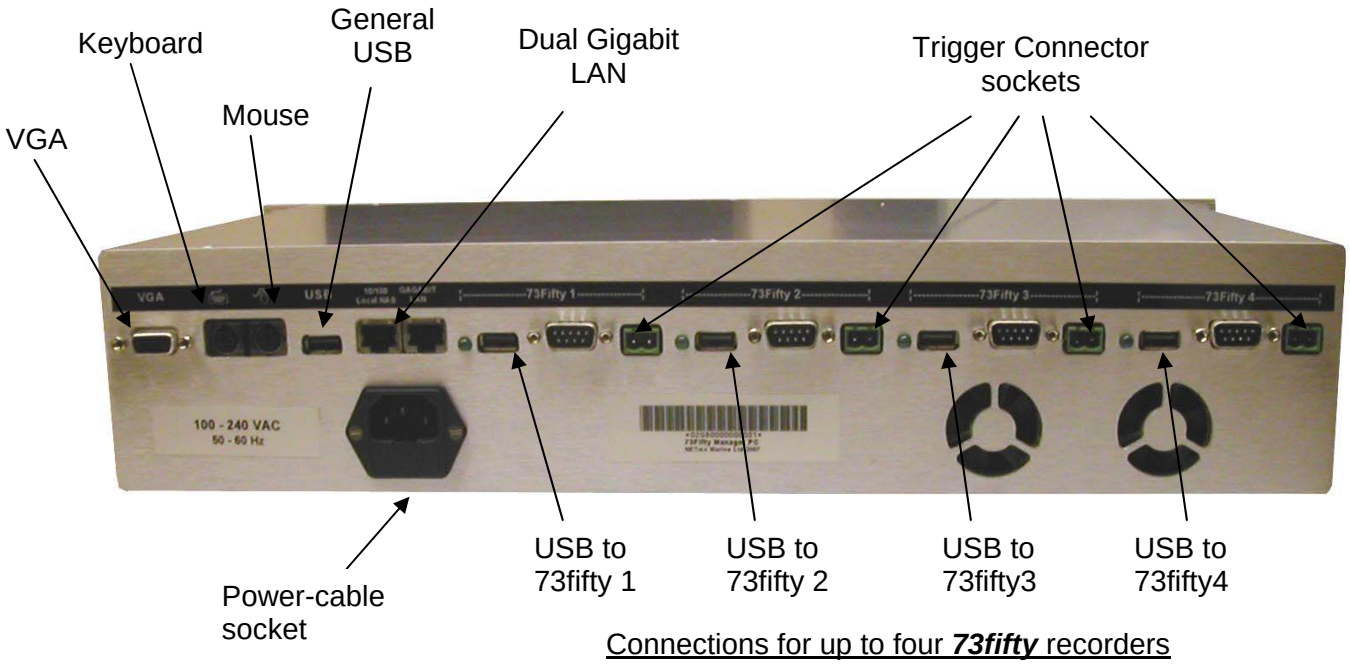


LCD screen
Text on this screen indicates the status of the file transfer software – for example time & date, whether the unit is auto-harvesting or operating on a manual basis.

USB sockets
General purpose USB ports for the connection of portable storage drives for example.

LEDs
The top LED indicates whether the power is on.
The bottom LED indicates disk drive activity.

2.2 Back of the unit



Connections for up to four ***73fifty*** recorders

Input sockets
The back of the unit has sockets for connecting a monitor, keyboard, mouse and a further USB socket for connecting, for example an external storage device.

Connections for up to four ***73fifty*** recorders
USB sockets are provided for the connection of up to four ***73fifty*** recorders.

Trigger connector sockets
Connect up to four ***73fifty*** recorders to these sockets via the trigger connector supplied, to allow remote starting of recording. (The connectors are 2-way COMBICON terminal block connectors, RS part 189-6486). One trigger connector is supplied with each ***73fifty*** recorder.

Remaining sockets are for future development use.

It is important to plug in all video connections before switching on the *73fifty Harvester PC*.

3. Set-up

1. Mount the ***73fifty Harvester PC*** in a suitable rack mount system.

2. Connect the power supply. **Note: this unit should be earthed**. Note (2): we highly recommend connection to a UPS (uninterruptible power supply) to prevent data loss.

3. Connect keyboard / mouse / monitor

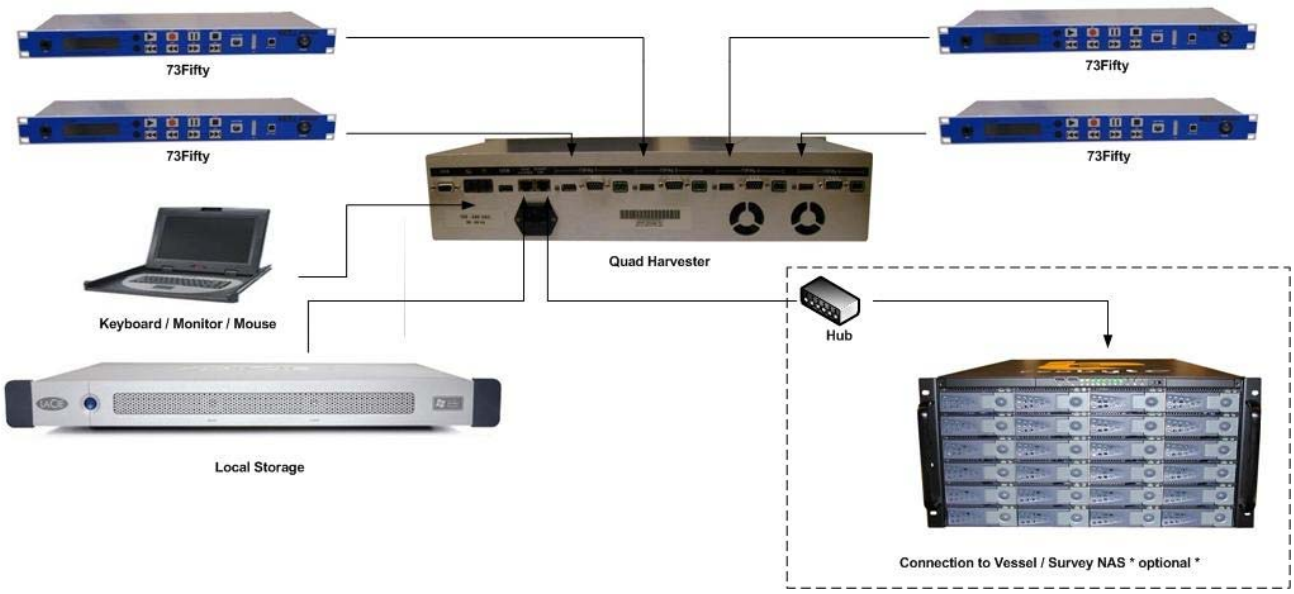
4. Connect USB links to up to four ***73fifty*** recorders.

5. For Pipeline Inspections only: connect up to four ***73fifty*** recorders via the green trigger connector sockets to allow synchronised start of video recording through the ***73fifty Harvester PC***.

6. Configure software settings as described below.

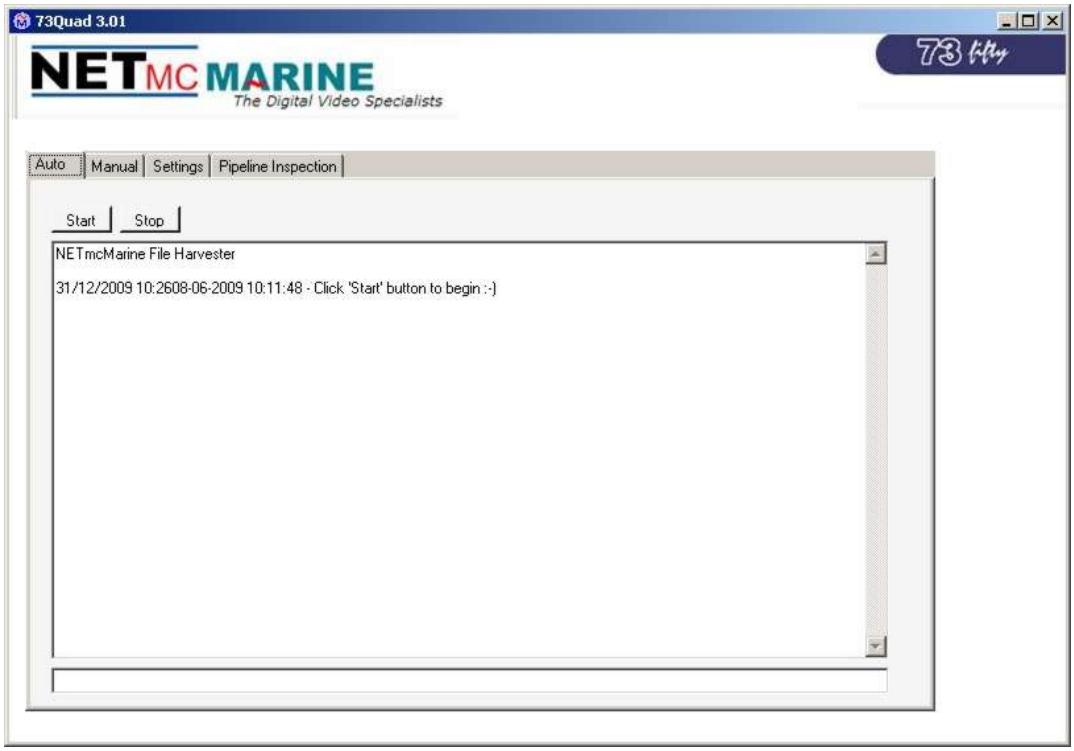
7. Start recording by pressing REC on each ***73fifty*** recorder, OR for pipeline inspections, click REC on the ***73fifty Harvester*** PC.

8. Click START to begin the auto-harvest.



4. Harvesting Software

Click on the shortcut on your desktop to open up the "***73fifty Quad***" software and you will see the screen below.



4.1 Settings

In the "Settings" section of the software, the user can configure the settings of the ***73fifty Harvester PC*** to enable files from one, two, three or four ***73fifty*** recorders to be automatically harvested.

For each ***73fifty*** recorder connected:

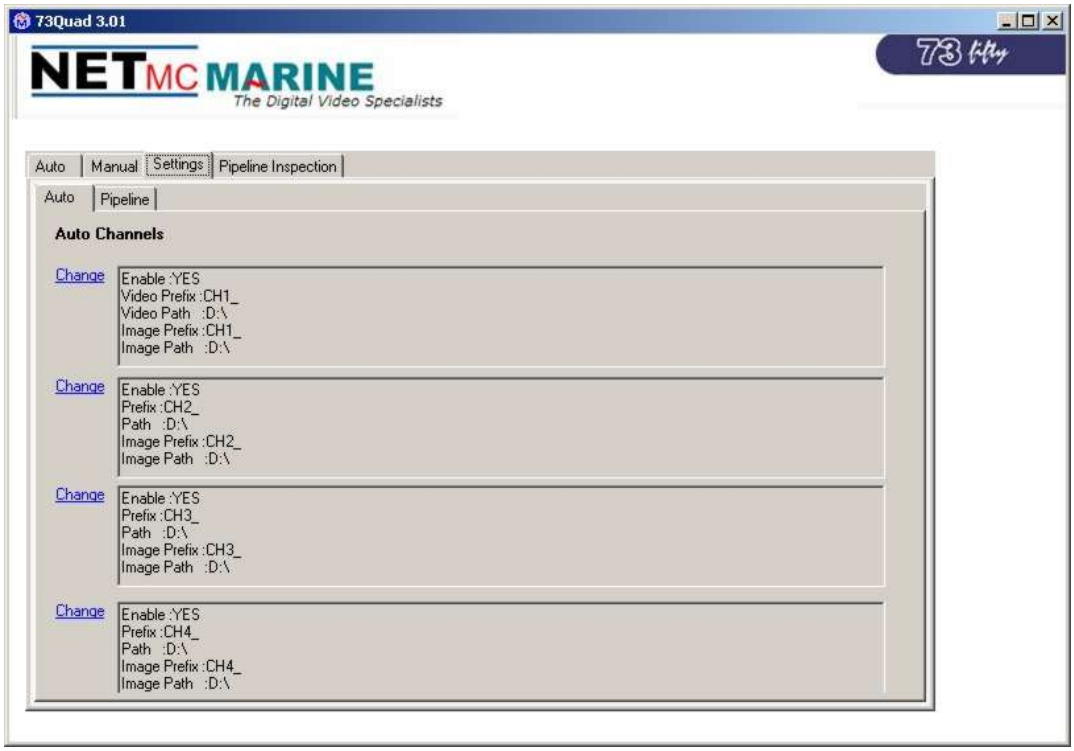
Enable: Change this to "YES" if you wish files to be automatically harvested.

Prefix: Free text of the user's choice. Any files harvested from this recorder will be prefixed by this text for easy future identification.

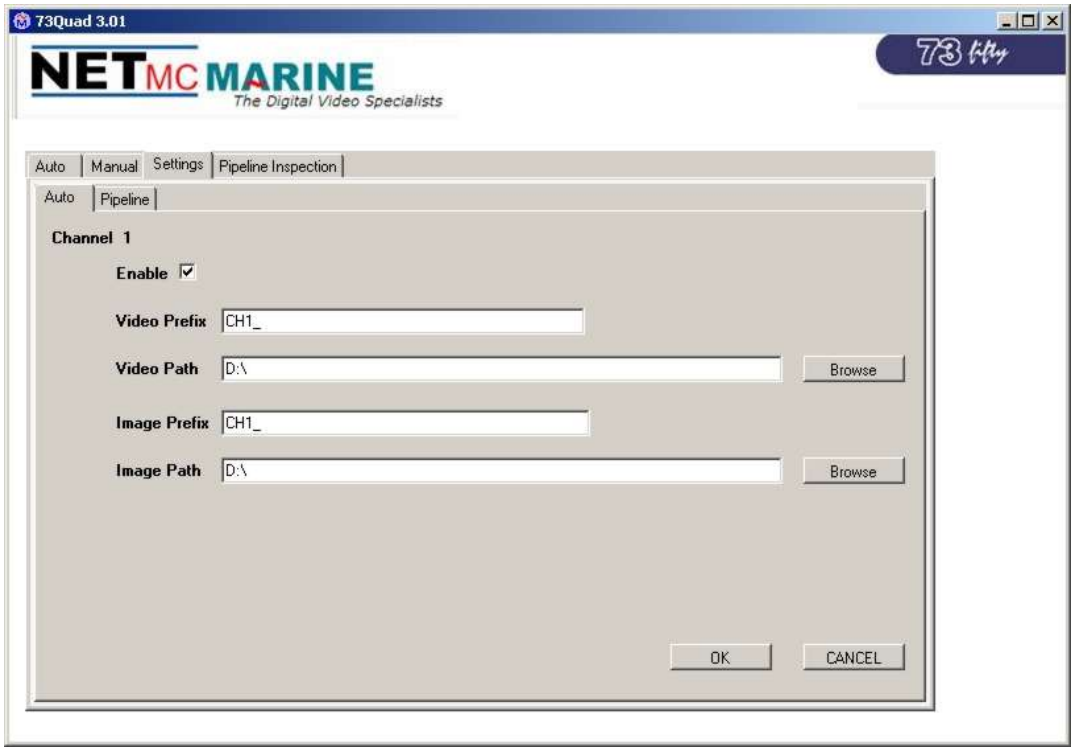
Path: The path is the required destination of the files (where they should be saved to.) This can be for example a local or a network drive or an external hard drive. The Harvester checks the validity of the path (e.g. if there is a network available.)

Note: The settings can be completely different for each recorder.

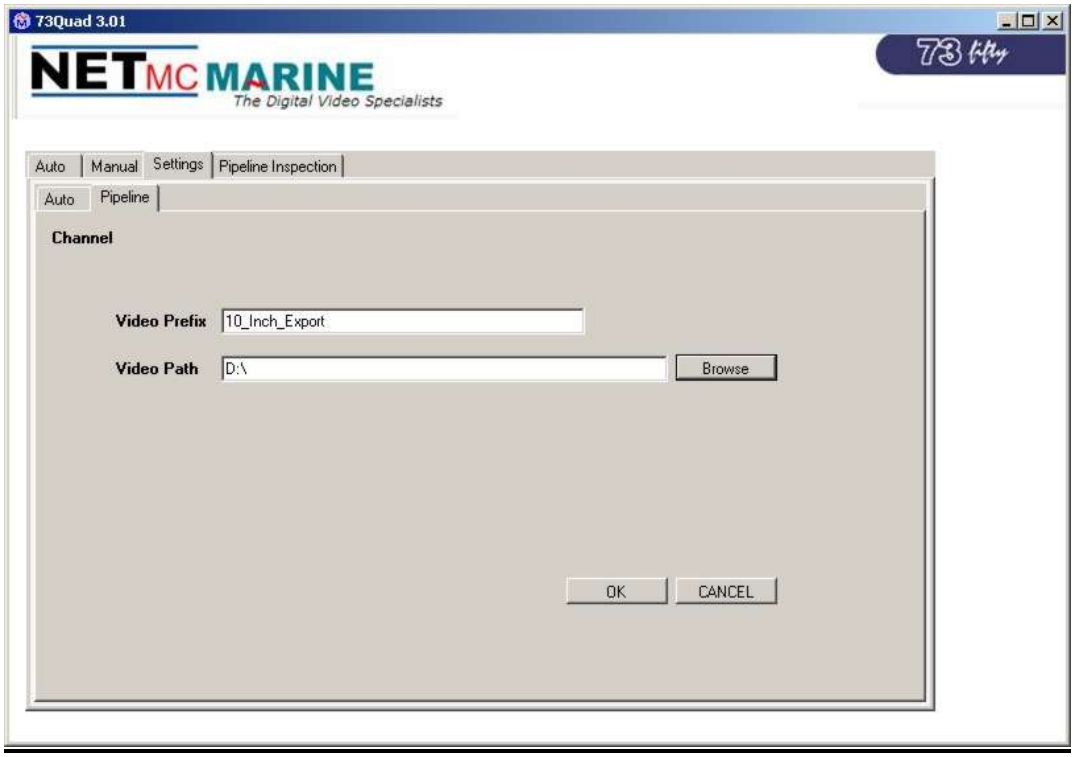
In the example below, the Harvester has been set to auto-harvest files from four recorders, with different prefixes for each, and the video and images set to be recorded to the D:\ drive.



The screen grab below shows an example of the screen seen once “Change” has been clicked for Channel 1, allowing the user to adjust the settings.

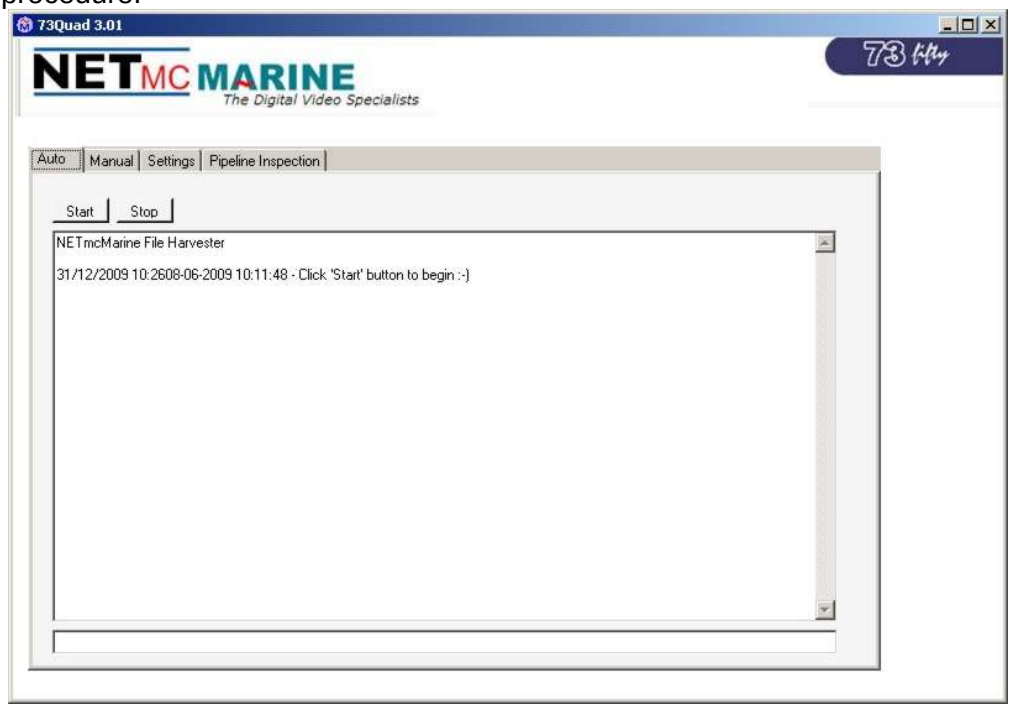


The settings (video prefix and path) can also be adjusted for pipeline inspections, as illustrated in the image below:



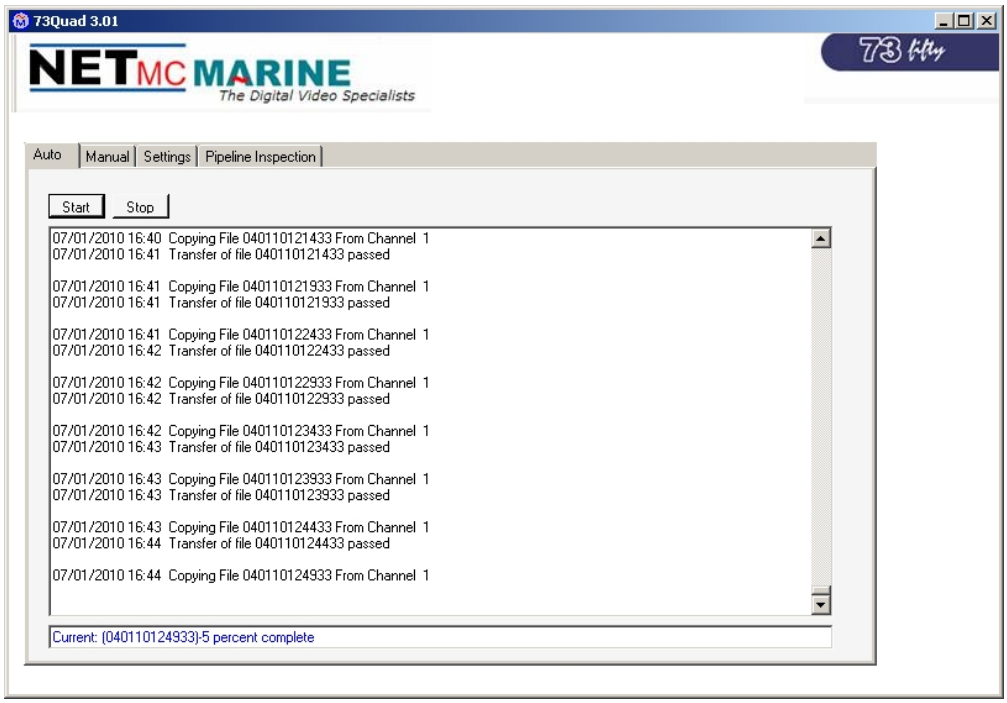
4.2 Auto Harvesting of Video Files

Once the settings have been entered, click on “Auto” and then press “Start” to start the automatic harvesting procedure.



The ***73fifty Harvester PC*** will begin to upload files from the selected recorders immediately regardless of whether the ***73fifty*** recorders are currently recording or idle. Any recording in progress will not be interrupted.

The ***Harvester*** has been hardware encoded to check every hour to see if there are new files. Any new complete files recorded since the last check will then be uploaded.

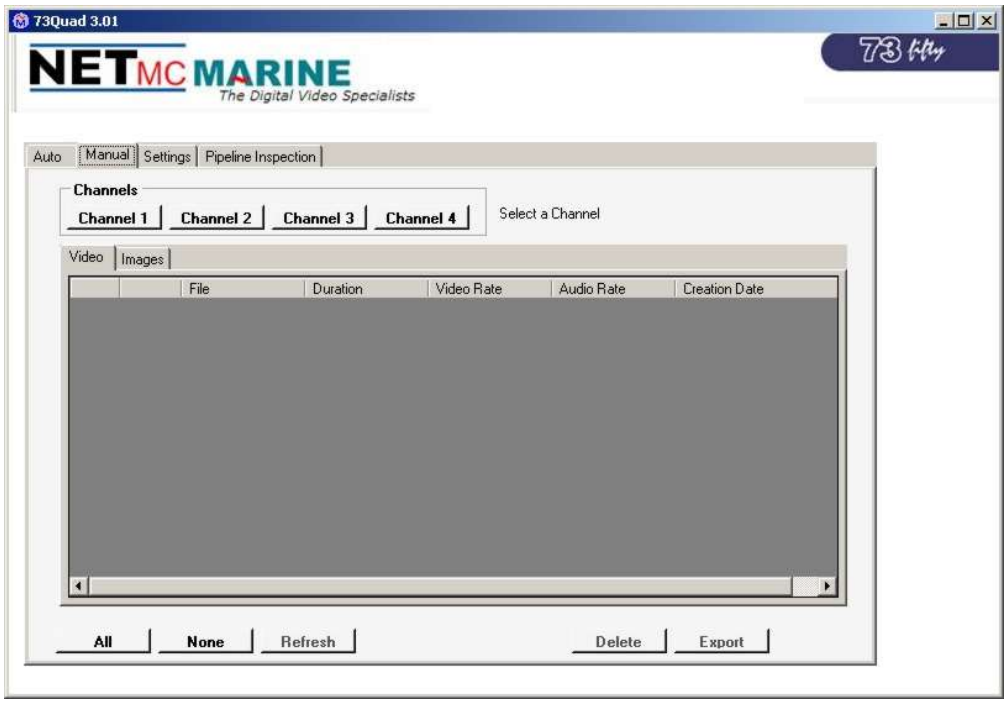


4.3 Manual Harvesting of Video Files

The manual section of the ***73fifty Quad*** software operates like the traditional ***73fifty Upload*** software.

Here the user can select and upload any single or block of files, or search through the files on a particular recorder.

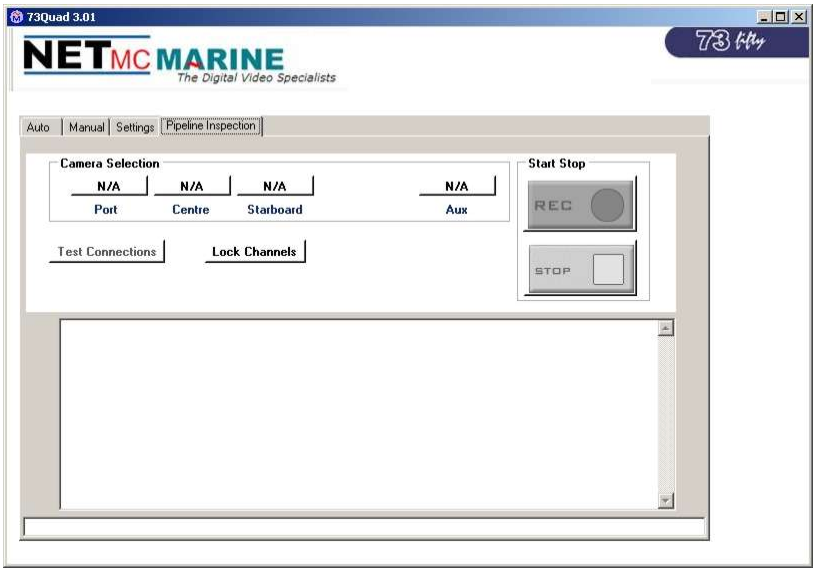
This is also the only section where it is possible to delete files.



The user should click on the Channel relating to the particular recorder to be searched (selected channels change colour) – then a list of files will be shown.

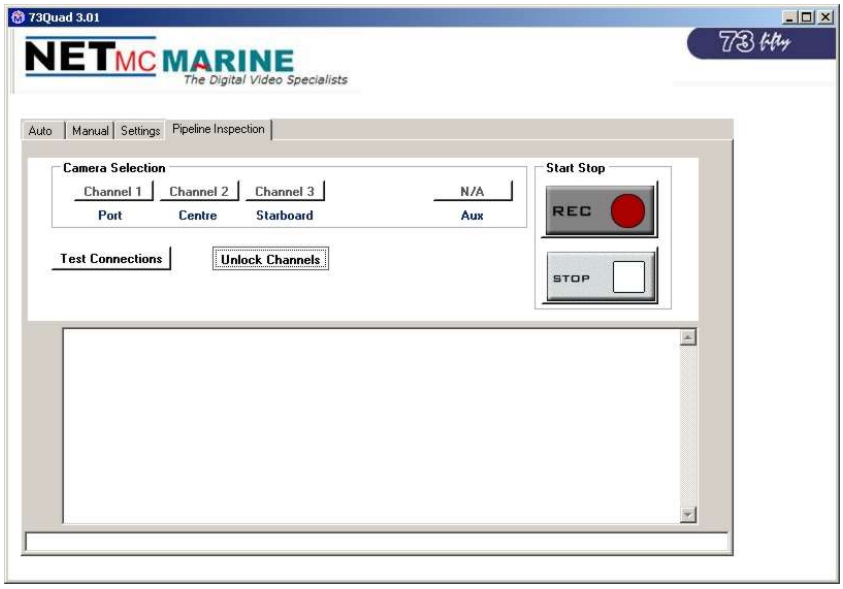
Select the files to be uploaded and click on “Export”.

4.4 Pipeline Inspections



If three ***73fifty*** recorders are connected to the ***73fifty Harvester*** PC via the trigger connector sockets, the Pipeline Inspection section of the ***73fifty Quad*** software can be used to synchronise recording.

The user should set up which ***73fifty*** recorder is going to be which channel (port / centre / starboard etc). Click on the buttons above “Port”, "Centre", “Starboard” respectively to select the channel required. Then click on “Lock Channels”.



Then when the record button is pressed, pipeline compatible file names are generated e.g.:

2009-1126-144830-000-10_Inch_Export-PORT.mpg
2009-1126-144830-000-10_Inch_Export-CENTRE.mpg
2009-1126-144830-000-10_Inch_Export-STBD.mpg

In this example "10_Inch_Export” is the user friendly name that has been input on the settings page, and PORT, CENTRE and STARBOARD relates to the ***73fifty*** on which the file was recorded.

5. Deleting Files

When the hard drive of each ***73fifty*** recorder becomes full, files will need to be deleted to clear space.

Files should be deleted using the “Manual” section of the ***73fifty Quad*** harvesting software.
(Any auto-harvesting process will need to be stopped before the “Manual” section can be opened.)

1. Select the channel relating to the ***73fifty*** recorder which has the files to be deleted.
2. Select the files to be deleted by clicking the box next to the filename, or select “All”.
3. Click on “Delete”.

Important: To complete the deletion process, either power-cycle the *73fifty*, or select Option 5: “Renew File System” from the menu on the *73fifty* recorder.

6. Copying / Sharing Files

Minimise or close the ***73fiftyQuad*** software, and the ***73fiftyHarvester PC*** can be used like any other Windows PC to copy and paste files – e.g. to an external USB drive connected to the front of the unit. Files can also be shared over a network.

Warning: If additional tasks are run while file uploading is in progress, should these tasks fail or cause instability to the PC / Windows then this might jeopardise the upload process.

The ***73fifty Harvester – D*** variant is fitted with a DVD Burner. If required, files can be saved to a DVD through the pre-installed Nero software. Follow the on-screen instructions to create a Data DVD \ Make Your Own DVD-Video.

Note: DVD burning will be quicker and less prone to errors if file uploading is stopped before the burn process is started.

7. How to contact NETmc Marine Support

Should any problems occur with your ***73fiftyHarvester PC*** that are not addressed by this manual please contact our Support Team:

Email: support@netmcmarine.co.uk.

Tel: +44 1771 644001

Should your call be outside office hours, please leave a message on the answering machine, which will be forwarded to one of the support engineers. Although we cannot guarantee 24/7 availability, we endeavour to respond as quickly as possible to any query – regardless of when the support call is made.

Note: Whilst every effort has been made to ensure that the information contained in this manual is accurate, no liability can be accepted for errors and omissions.

Appendix 1

Technical Specifications

Power Requirements	90-240 Vac, 50-60 Hz
Power Consumption	60 w
Operating Temperature	10 - 35 Degrees
Non-operating Temperature	-10 - 60 Degrees
Operating Humidity	5-95% RH non-condensing
Non-operating Humidity	5-95% RH non-condensing
Operating Shock	65G, 2ms
Non-operating Shock	250G, 2ms
Operating Altitude	-305m – 3,050m
Non-operating Altitude	-305m – 12.200m
Operating Vibration	Linear 20-300Hz, 0.75G (0 to peak) Random 10-300 Hz, 0.004g2/Hz
Non-operating Vibration	Low frequency 5-20 Hz, 0.195 inches (double amplitude) High frequency 10-300Hz, 5.0G (0 to peak)
Dimensions	482(W) x88.5(H) x 255(D) (2U case)
Weight	6kg
Network Support	10/100 & 10/100/1000 Base T

Storage and shipping

After overnight road freight the units should be left at room temperature for 24 hours before powering on.

After air freighting the units should be left at room temperature for 48 hours before powering on.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.